

CLAIMS

1. An optical data writing method for writing user data optically on an optical disk by dividing the user data into a number of blocks, each being made up of a plurality of
5 sectors, and adding an error correction code to each said block, the method comprising the steps of:

writing a first set of data, including data representing a first content, on a track on the optical disk; and

writing a second set of data, including data
10 representing a second content, onto the track such that an unrecorded area, where no data is stored, is left between respective areas where the first and second sets of data have been written.

15 2. The optical data writing method of claim 1, wherein the track on the optical disk includes no prepit areas defining addresses.

3. The optical data writing method of claim 1 or 2,
20 wherein the unrecorded area is at least as long as one sector.

4. The optical data writing method of one of claims 1 to 3, wherein the end of the data representing the first content and/or the beginning of the data representing the second content includes dummy data.

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5. The optical data writing method of one of claims 1 to 3, wherein the first set of data includes dummy data after the data representing the first content.

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6. The optical data writing method of one of claims 1 to 3, wherein the second set of data includes dummy data before the data representing the second content.

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7. The optical data writing method of claim 5 or 6, wherein a gap as long as one block is provided between the respective areas in which the data representing the first content and the data representing the second content have been written.

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8. The optical data writing method of claim 5 or 6,

wherein each of the first and second sets of data is divided into a plurality of sectors, which are spaced apart from each other by linking areas of the same length, and

wherein a gap as long as one linking area is provided
5 between the respective areas where the data representing the first content and the data representing the second content have been written.

9. The optical data writing method of one of claims 4 to
10 8, wherein the dummy data defines a phase-locking pattern.

10. The optical data writing method of claim 1, wherein the first or second set of data is written by irradiating the unrecorded area with light having erasing power.

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11. A computer-readable storage medium having stored thereon a program that is defined so as to make a computer execute respective processing steps of the optical data writing method of one of claims 1 to 10.

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12. An optical disk drive for writing user data optically on an optical disk by dividing the user data into a number of blocks, each being made up of a plurality of sectors, and adding an error correction code to each said
5 block, the drive comprising:

a motor for rotating and driving the optical disk;

an optical head for irradiating the optical disk with a light beam to write data thereon;

a servo control section for controlling the rotational
10 velocity of the motor and a spot made by the light beam; and

a light beam control section for controlling the intensity of the light beam,

wherein the servo control section and the light beam control section control the optical disk and the light beam so
15 as to write a first set of data, including data representing a first content, on a track on the optical disk and then write a second set of data, including data representing a second content, onto the track such that an unrecorded area, where no data is stored, is left between respective areas
20 where the first and second sets of data have been written.

13. The optical disk drive of claim 12, wherein the track on the optical disk includes no prepit areas defining addresses.

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14. The optical disk drive of claim 12 or 13, wherein the unrecorded area is at least as long as one sector.

15. An optical disk, on a track of which user data has
10 been written optically by dividing the user data into a number of blocks, each being made up of a plurality of sectors, and adding an error correction code to each said block, wherein an unrecorded area, where no data is stored, is provided between an area where a first set of data,
15 including data representing a first content, is stored and an area where a second set of data, including data representing a second content, is written.

16. The optical disk of claim 15, wherein the track
20 includes no prepit areas defining addresses.

17. The optical disk of claim 15 or 16, wherein the unrecorded area is at least as long as one sector.